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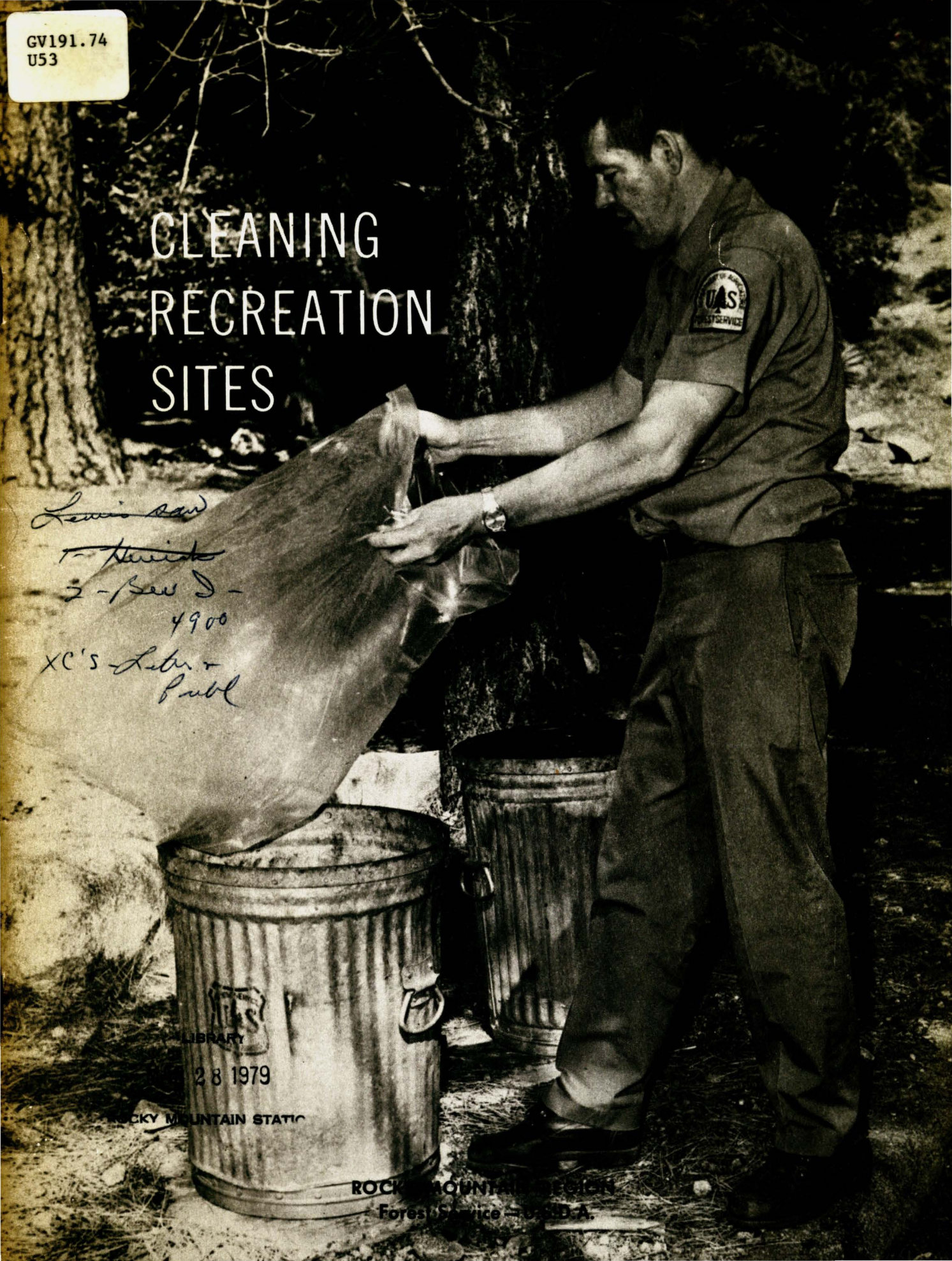
CLEANING RECREATION SITES



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A GUIDE TO CLEANING RECREATION SITES

Rocky Mountain Region
Forest Service - U.S.D.A.

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GOAL - Motto

Our goal is to keep our recreation sites in a neat, safe, and sanitary manner so that visitors will not be distracted from their recreation pursuits by sloppy housekeeping on our part.

Recreation facilities should always be clean and neat regardless of their age or condition. We must continue to live with many old improvements, but they can still be kept clean and neat.

Age is forgivable -- sloppiness is not!

INTRODUCTION

This booklet is designed to be used by recreation aides in the field to obtain efficient and effective cleaning and policing of recreation sites. There are several techniques and many types of equipment that can be combined to meet this objective. This booklet will deal only with manual tools, chemicals and cleaners; and one technique in using this combination of tools and materials.

Several other subject areas of recreation management, when properly applied, can also contribute to efficient and effective cleaning and policing. These subjects will be treated in detail in a "management guide" to be issued at a later date. Some of this information will be discussed briefly here.

1. Location and design of a recreation site can have considerable effect on cleaning and policing efficiency. Crew travel time, job load on the site, use of easy to clean building materials in facilities, location of facilities relative to equipment access, and other factors which are somewhat controllable at the time of site selection and design, have considerable influence on cleaning and policing. Tradeoffs must be made so that cleaning and policing will seldom be optimized, but this must be one important consideration in site design.

2. Betterment of existing recreation site facilities can often replace difficult to clean improvements with new easier to clean ones. Sometimes this may be done at little expense, such as the replacement of rough brass water hydrants with self-cleaning polished chrome hydrants.

3. Properly selected materials for heavy maintenance can greatly ease the cleaning job of the recreation aide. Examples are the use of hard, impervious coatings on toilet interiors, and the restoration of wood table tops with easy to clean fiberglass shells instead of paint or stain.

4. Management techniques such as the use of mechanized cleaning equipment, controlling the number of ramp units open for use to the actual demand, proper sizing of crews, task organization, and many others will have a great effect on cleaning and policing efficiency and effectiveness.

Standards for the Complete Job of Cleaning and Policing

Cleaning and policing should be performed with sufficient regularity at each developed site to give the overall appearance of:

1. Being clean and sanitary; indicators:

Toilets - free of: dust, cobwebs, insects (dead and alive) etc., on window ledges, dividers and rafters; unpleasant odors - both sewage odors and chemical odors; writing and soil on walls; trash and water on floor. Toilet tissue is available. Toilet fixtures are clean; seats and covers are dry.

Toilet vaults - not over 3/4 full.

Tables - free of caked grease and food particles. Surface appears as clean as the finish will allow.

Fireplaces - free of baked on grease and food remnants. Fireplace usable - no more than 1/2 full of ashes. Ashes and partially burned wood confined to fireplace.

Water hydrants - free of food particles, grease and debris in catch basin. Faucet is clean.

Garbage - cans not overflowing; free of crusted garbage buildup on inside of can; tight lids; free of holes; clean on the outside; no flies or yellowjackets.

Signs - fresh, neat and well maintained. No signs or backboards on trees in developed sites.

Water systems - water clear and colorless.

2. Being free of litter; indicators:

Litter should not be obvious. A few scattered cigarette butts, bottle caps, etc., may be present; however, several large pieces such as candy wrappers, cigarette package foil, paper plates, or concentrations of small items should not. The family unit should be free of obvious concentrations of small items (bottle caps, cigarette butts, etc.) such as occur when an ashtray is dumped, or as can be expected around a picnic bench, etc. Emphasis on the small items generally will be limited to the family unit. In the buffer areas between and around family units, emphasis will be placed on removing the large noticeable pieces of litter. This includes areas surrounding a site which are directly influenced by users, such as a trail alongside a stream, a short loop trail to a vista point, etc.

A stream running through a site should be free of all litter as should be a lakeshore or beach adjacent to a developed site.

3. Being neat in appearance; indicators:

Toilet roofs free of year's accumulation of needles and leaves; building exterior walls clean so as not to draw attention. Portable tables, garbage cans and other facilities reasonably level and in proper location. Rocks and masonry clean of vandals' paint.

4. Being well kept by minor maintenance; indicators:

Maintenance work should be limited to minor projects needed to keep facilities serviceable. They should not be performed at the expense of completing the cleaning and policing job. Examples of such projects are:

- Replacing gasket in leaky hydrant.
- Straightening a signpost.
- Tightening door hinges.
- Minor drainage work to protect the site.
- Removing nails and wire in trees and facilities.

Frequency and Management

Frequency for performing the various cleaning and policing tasks must be determined by unit managers to meet the Goal using the preceding Standards. It is recognized that there will be times when it will not be possible to clean or police a given facility due to occupancy by the public. In these cases, treatment can be postponed until the next reasonable time considering the severity of the situation. Thus, cleaning the living area of a camp unit will be postponed until the unit is next vacant. On the other hand, if a toilet needs cleaning the caretaker should wait in the area until the toilet is vacated rather than simply postponing the cleaning until the next day. Generally, items of work needed for safety or sanitation should not be postponed. Stove ashes may be removed while the camp unit is occupied. Unit managers should maintain close contact with use patterns in order to vary the frequency of cleaning and policing treatment to meet the existing conditions. Our policy will be to meet our "Goal" at all times that facilities are in use. Consequently it will be good business for managers to vary frequency of treatment by any or all of the following means:

1. Adjust number of personnel.

2. Adjust amount of equipment (vehicles, garbage cans, etc.).

3. Execute "variation clauses" in contracts, or increase cleaning visits by force account.

4. Adjust length of stay of visitors.

5. Temporarily close whole sites or portions of sites when use is light.

6. Permanently close uneconomic sites.

7. Ask public to haul out trash from undeveloped and boat access sites. Provide plastic bags or burlap sacks and instructions for use where necessary.

How to do the actual job

A recreation site that is clean and well maintained is easiest to keep in that condition since visitors are more cooperative when they are pleased with good conditions. This also deters vandalism. The procedures, tools and materials which follow do not constitute the only way to do the job. However, they have been derived from Servicewide sources and from professional janitorial firms to meet our "Goal" under the special circumstances of our recreation sites. Deviations should be carefully considered for their potential effect on safety, sanitation, and cost. Facilities have been divided into two classes, Class A - Waste Facilities and Class B - Other Facilities, in order to separate the tools and materials into two kits. This has been done to prevent cross-contamination of the Class B facilities.

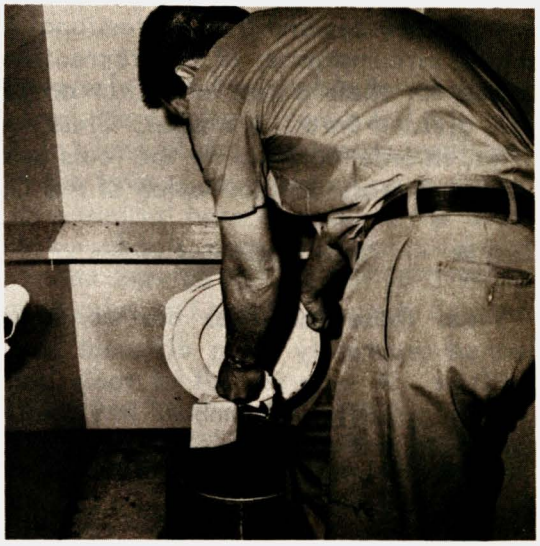
Class A - Waste Facilities

Since these facilities are contaminated by disease bacteria, they should be cleaned separately using different tools and materials from those used for Class B facilities. A separate kit of tools and materials should be put together for each class of facilities. Numbers in ( ) following the item key to a description of the item in Appendix I.

TOILET CLEANING

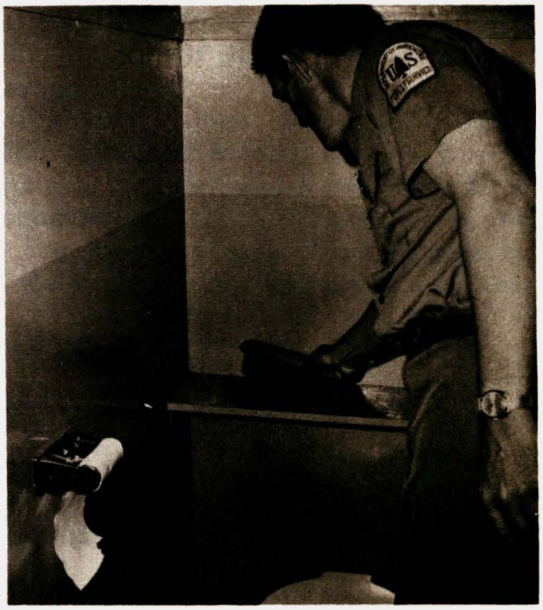
Tools and Materials
- Broom (1)
- Double bucket (13)
- Mop (2)
- Mop bucket & wringer (21)
- Sponge (12)
- Toilet brush or swab (3)
- Putty knife (4)
- Measuring cup
- Disinfectant, deodorant, detergent (22)

- Toilet cleaner (23)
- Rags (6)
- Dustpan (8)
- Dusting brush (7)
- Toilet paper
- Seat covers (if used)
- Rubber gloves (if desired)



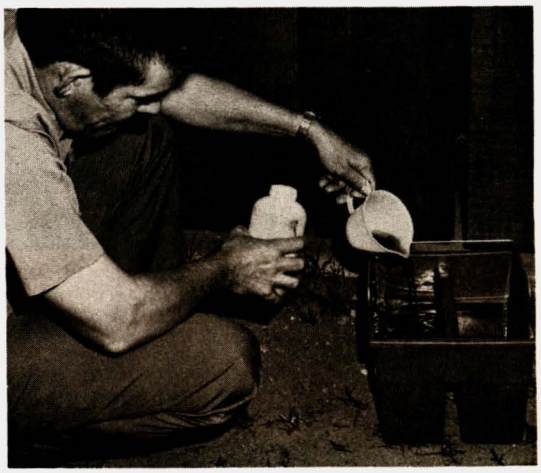
Procedure

Pick up - all paper scraps and refuse on floor and on trail to toilet. Place in receptacle or in vault.

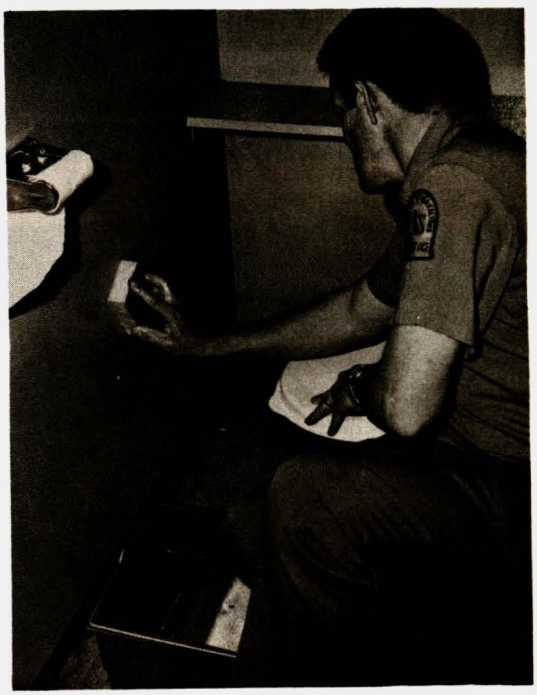


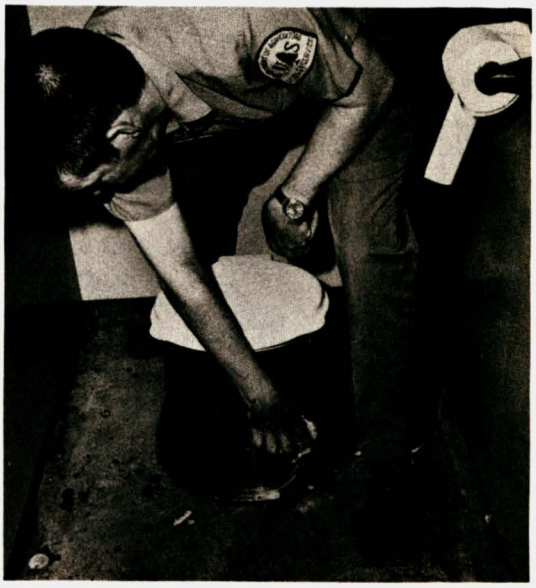
Dust - with brush: window sills, rafters, window louvers, and other flat surfaces visible to public. Clear all cobwebs.

Mix - a solution of disinfectant, deodorant, detergent (3D) in one side of the double bucket. Have clear water in the other half. Use the measuring cup to measure the proper amount of 3D concentrate recommended by the manufacturer. Dilutions vary from 1:20 to about 1:120 depending on the amount of soil encountered and the disinfection desired. However, always use the measure because unneeded detergent or disinfectant will not do a better job -- it will be wasted. Always read the label.



Wipe or Scrub (as needed) - use a 3D soaked sponge to wipe down walls. Use the abrasive side of the sponge where necessary on stubborn marks after the detergent has had a chance to loosen the mark. Rinse the sponge in clear water before dipping it into the 3D solution again. It is not necessary to rinse the 3D solution from the walls unless soil is heavy. It will provide residual disinfectant and deodorant action. (If wash basins are provided, clean them before starting on the walls with a clean sponge and fresh 3D solution.)

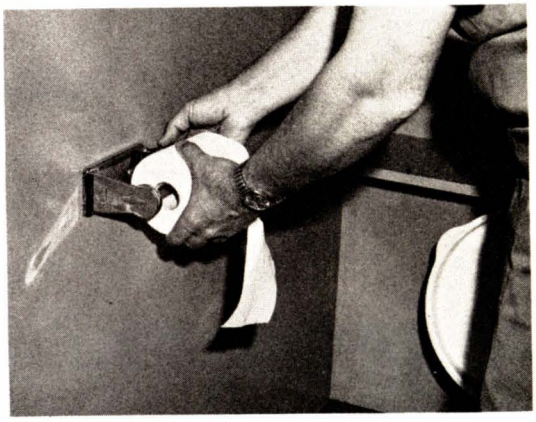




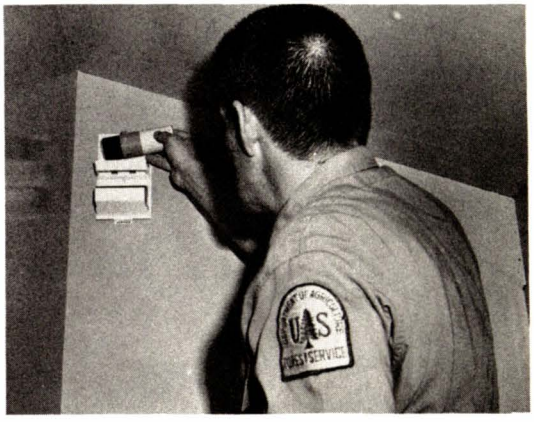
At each visit - using a sponge, scrub the outside of the toilet stool and both sides of the seat and cover with 3D solution. Pay particular attention to the hinge. Finish up by using the long handled toilet brush or swab to scrub the inside of the toilet stool down to the collar with the toilet bowl cleaner.

Scrape - gum, etc., from floor with putty knife.

Sweep - floor clean without water. Pick up material with dustpan. Don't sweep small litter, etc., out the door.

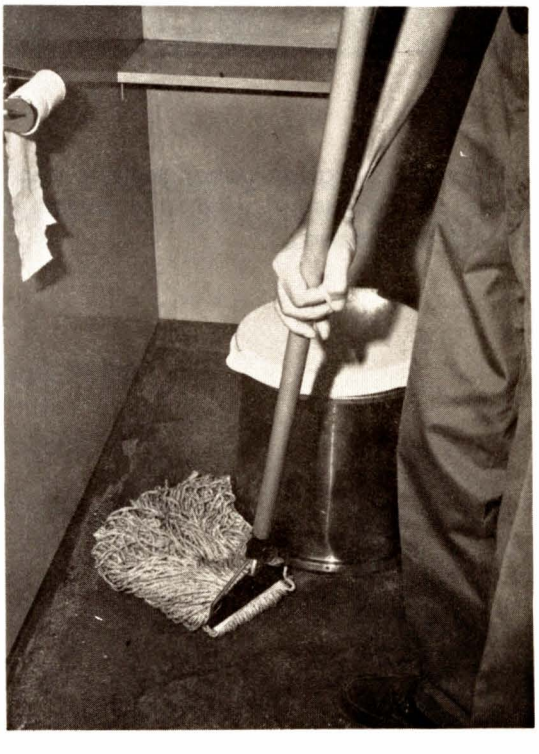


Check - toilet paper supply and replace as necessary. Replace space deodorant as needed.



Polish - and dry the toilet stool seat and cover with a clean rag. Give the compartment a final check.

Mop - at least once a week with 3D solution and as often as necessary to maintain a clean, smear free floor. Dry mop the floor so as to leave it as dry as possible. Change mop 3D solution often. Dirty solution loses its effectiveness.



Odor Control

Toilet vaults - Most odor problems are associated with open stool toilets. The construction type, size, or material of the waste receptacle is unimportant. What is important is that there are several hundred gallons of waste material under the large opening of the toilet stool. The vent system, in most cases, cannot overcome the draft up through the toilet stool and strong, unpleasant odors in the toilet compartment result.

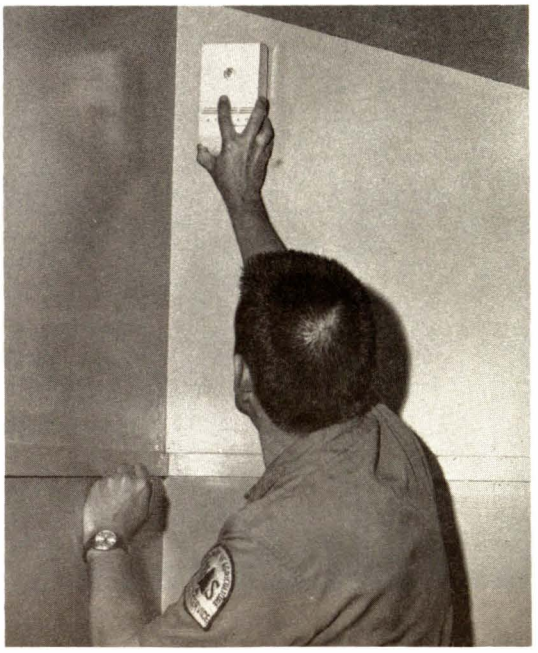
Odor is caused by bacterial action on the wastes. There are two forms of this action, anaerobic and aerobic. The first is typical of septic tank action and takes place in the absence of oxygen. The second is typical of sewage treatment plants and requires oxygen to take place. Anaerobic action is characterized by strong odors. Aerobic action is relatively odorless.

It is virtually impossible to successfully encourage aerobic action in a pit or vault toilet because of the impossibility of getting oxygen to all of the waste particles. Addition of aerobic bacteria or enzymes can only be of questionable benefit to the surface of the waste mass.

Suppression of odor by killing all bacterial action is not recommended because of the difficulty which may be encountered when the sterile wastes must receive final disposal.

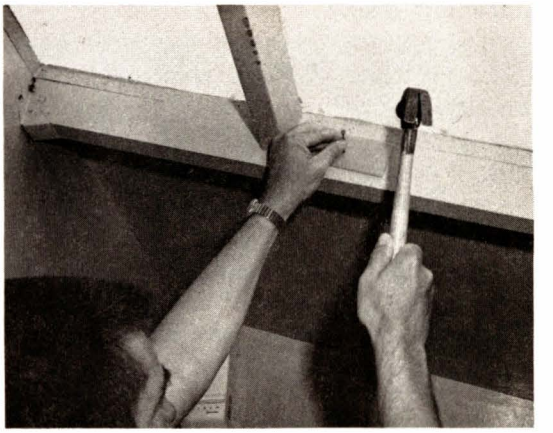
Odor control with deodorants is recommended. There are two types of deodorants which suppress odor by working on the odor molecule. One masks the odor, the other combines with a bad odor to form a new, more pleasant odor or neutralizes it entirely.

Toilet Compartments - Space deodorant blocks in an appropriate diffuser should be used in the toilet building, even in flush toilets. A list of satisfactory deodorants appears in Appendix I.



Two deodorants which have a record of success in toilet vaults are listed in Appendix I. There are undoubtedly others which are not now recommended because we have no experience with them. Dosages and frequency of application should be determined from manufacturer's instructions and from a good deal of experience and constant checking with the nose.

Insect Control - Shell "No-Pest" strips and Johnson Wax "Raid" are approved for use in Region 2 by the pesticide committee. One of the Shell strips, removed from its cardboard diffuser, cut in half, and tacked high in the rafters of the toilet compartment, should provide adequate control of flies. Only one-half of a strip should be needed in the average size compartment.



Safety and Sanitation

Watch for splinters, protruding nails, torn screen or hardware cloth, etc., while dusting. Correct hazards as you go along. The 3D solution in proper strength is not hazardous, but most toilet bowl cleaners used in toilets are. Read the labels of all chemicals and follow instructions. Always install insecticide and deodorant blocks where children cannot reach them.

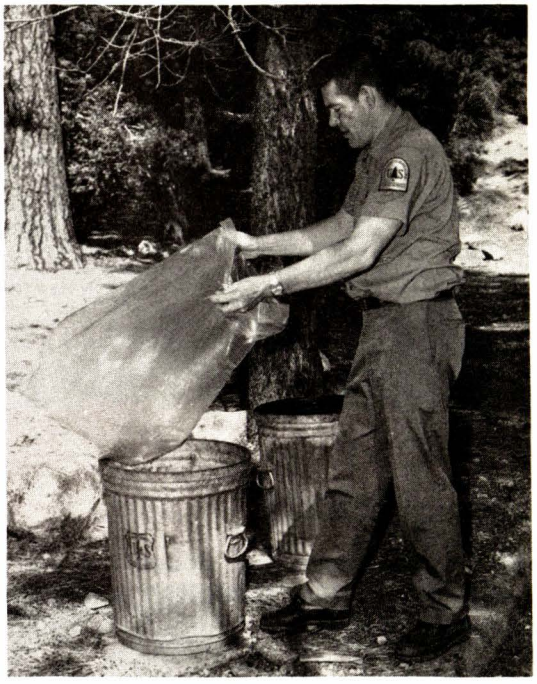
GARBAGE CANS

Tools and Materials

- Scrub brush (5)
- Disinfectant, deodorant, detergent (3D solution) (22)
- Double bucket (13)
- Rags (6)
- Plastic liners (20)

Procedure

Prevent - dirty garbage cans. Use plastic liners.

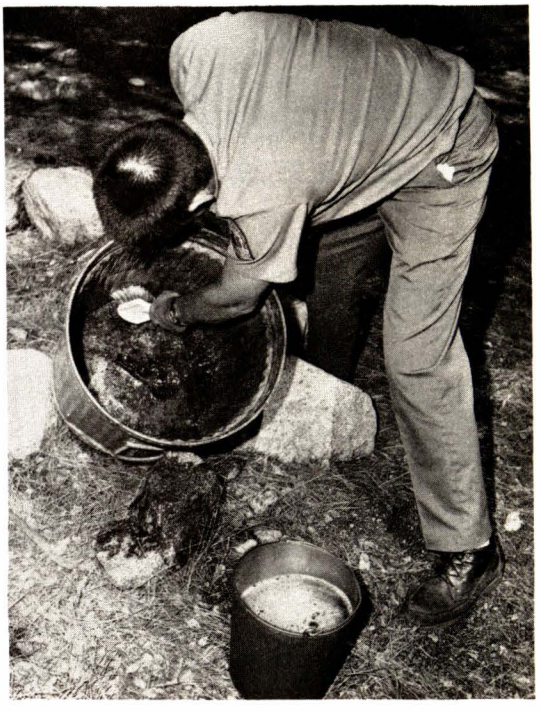


Scrub (as needed) - garbage cans, inside and out to remove caked and dried spilled garbage. Check the underside of the can for grease and garbage.

Steam clean - once a year.

Increase - number of cans if overflowing cans are evident.

Tie-down (or otherwise secure) - cans that are being tipped over by animals.



Spray - with Johnson Wax "Raid" insecticide once a week.

Pick-up - all litter and garbage immediately surrounding the can.

Hauling - tie-off plastic liners or cover the load with a tarp. Do not scatter litter and garbage in transit.

Replace - badly damaged cans and ones which no longer will accept a tight-fitting lid.

Safety and Sanitation

Heft plastic liners and check the load before lifting. Get help and "double bag" heavy or torn liners before handling. Watch out for plastic bags containing toilet wastes - handle carefully. Use heavy work gloves.

Class B - Other Facilities

Facilities in this group should not be cleaned with tools or materials used for cleaning of Class A Facilities.

TABLES

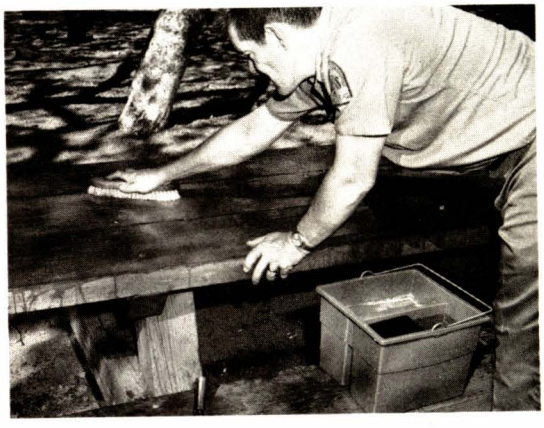
Tools and Materials

- Disinfectant, deodorant, detergent (3D solution) (22)
- Sponge (12)
- Scrub Brush (9)
- Double Bucket (13)
- Squeegee (10)
- Rags (6)

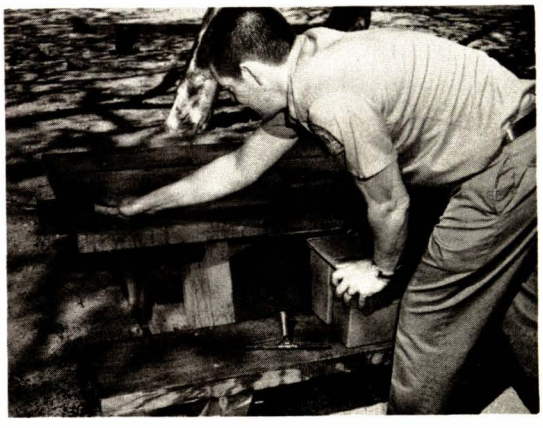
Procedure

Apply - a liberal amount of the 3D solution to table tops and benches with the sponge. Let the detergent work a minute or so.

Scrub - the table top and benches with the sponge or scrub brush as appropriate to remove the soil or stain.



Rinse - as necessary to remove soil.



Squeegee - excess solution from table tops and benches.

Wipe - excess solution from plank edges and squeegee skips with a clean rag.

Safety and Sanitation

Watch for splinters, nails, and loose planks. Correct deficiencies on the spot. Also, check for knee hazards under the table.

WATER HYDRANTS AND SYSTEMS

Tools and materials
- small brush (19)
- 3D solution (22)
- Double bucket (13)
- Rags (6)

Procedure

Remove - all litter and other refuse from catch-basin.

Replace - gravel in catch-basin if it is full of grease or has silted in with dirt.

Clean - water hydrant or pump with 3D solution.

Scrub - hose bib threads with small brush.

Polish - with a clean rag.

Safety and Sanitation

Be sure valve boxes are properly covered. Make sure chlorinators are operating properly and chlorine supply is adequate. Follow work supervisor's instructions for setting and maintenance of water treatment devices. Check water flow from hydrant or pump to see that it is clear and free of foreign matter.

FIREPLACES

Tools and materials - Wire brush (11)

- Heavy duty cleaner (24)
- Double bucket (13)
- Putty knife (4)
- Shovel (15)
- Ash can (14)

Procedure

Clean - ashes from fireplace before half full. Remove ashes in a metal container. Do not dump ashes with burnable garbage.

Scrape - all caked grease and food particles from grate with putty knife.

Scrub - grate and concrete with wire brush and heavy duty cleaner solution. Allow the cleaner several minutes to soften grease.

Rinse - excess cleaner and soil from the grate.

Remove - makeshift fire-rings. Scatter the stones away from the site. Eliminate all traces of fire

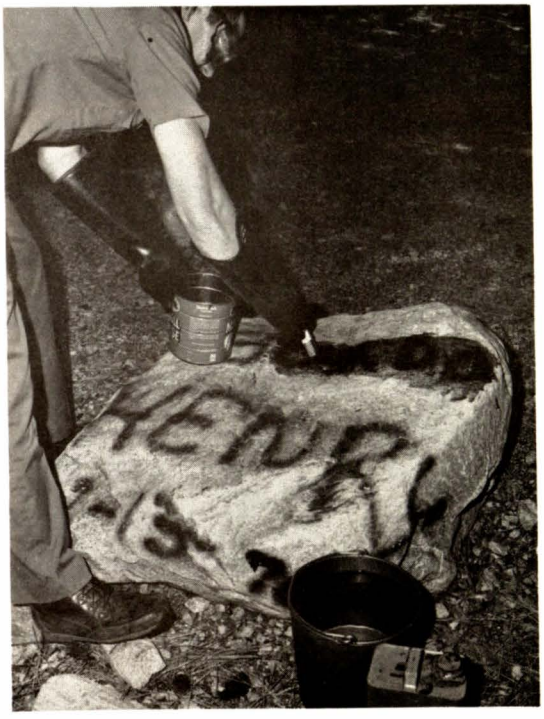
Safety and Sanitation

The heavy duty detergent will not cause chemical burns. However, it is very strong and contact with it should be minimized. Be careful that detergent solution is not splattered into your eyes. Remove "toe-trippers" from traffic pattern around fire-places.

ROCKS AND MASONRY

Tools and materials - Industrial paint remover (25)

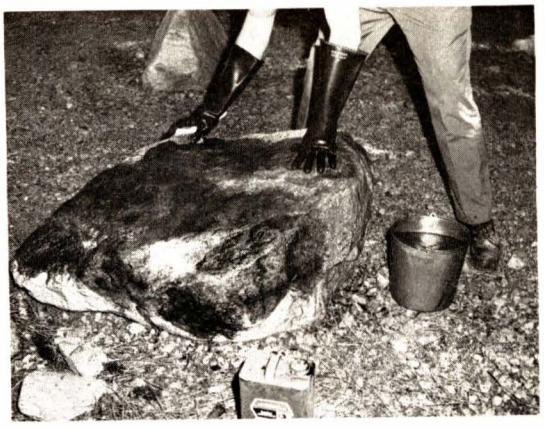
- Nylon paint brush (16)
- Nylon scrub brush (17)
- Bucket (18)
- Rubber gloves
- Eye protection
- Rubber apron (if desired)



Procedure

Paint-on - undiluted paint remover. Follow manufacturer's instructions.

Agitate - with the scrub brush. Be careful not to be so vigorous as to cause splattering.



Rinse - with clear water.

Safety and Sanitation

Paint remover is caustic and will burn. Use rubber gloves, keep clear water at hand to flush any that gets on your skin, and be careful. Eye protection is necessary. Use old clothes or wear a rubber laboratory apron.

RECREATION SITE GROUNDS

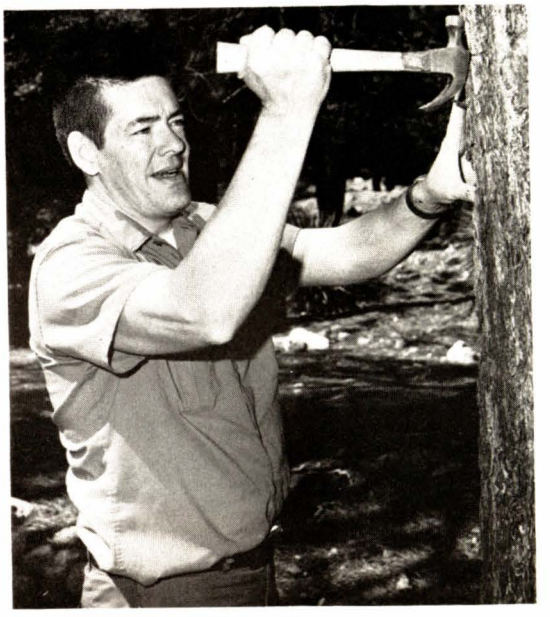
Tools and materials
- Litter picker (26)
- Claw hammer or wrecking bar
- Plastic bags
- Pruning saw
- Paint
- Paint brush

Procedure

Pick up litter - family units need more intensive policing than do the buffer areas around them. Pick up even small litter in family units when it detracts from a clean appearance. Pick up larger pieces of litter in buffer areas so that litter is not noticeable there. Do not perform litter pick up in family units that are occupied. Pick up all litter in streams and on water-fronts that run through or are adjacent to the site.

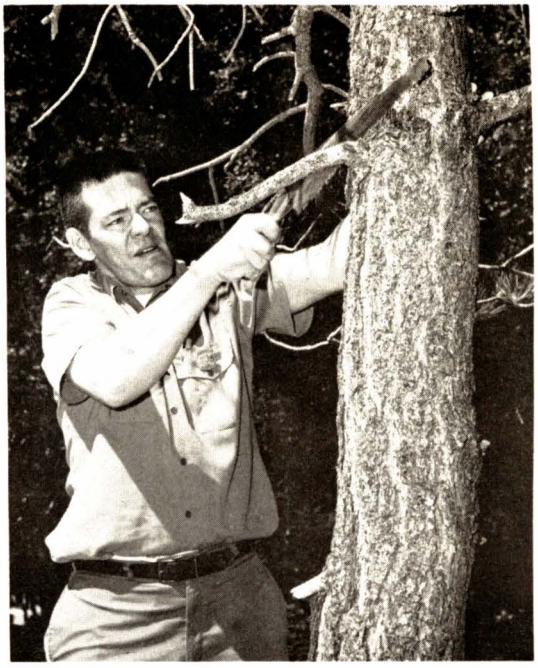
Dismantle - and haul off, all camper construction furniture.

Remove - all nails and wire in trees and facilities in or adjacent to family units.



Trim - all limb stubs which may be a hazard to visitors in family units or along pathways, with a pruning saw.

Paint - noticeable axe cuts, pruned limbs and other tree damage with a color paint that blends with the natural bark color.



SIGNS

Keep signs bright, patch holes or blemishes, straighten, tighten. Keep posters and paper signs fresh.

Use as few signs as possible to do the job. Place on main travel paths.

Keep sign post clear of weeds and brush.

Keep signing on bulletin boards simple, helpful, to the point, and neatly arranged.

Use sign posts and backboards in developed sites. Do not nail signs on trees or post on toilet doors or screens.

PUBLIC RELATIONS

Even though the Forest Service is a large organization, the average visitor will form a judgment of the entire Forest Service based on the action of a single employee. If this employee is rude or inefficient, it will take considerable kindness and efficiency by other employees to overcome this one bad impression. Therefore, YOU become the most important member of the Forest Service more often than you may realize. You are constantly in the view of visitors who may have no other contact with the Forest Service. What our visitors think of the Forest Service depends on the character of service rendered by you and your co-workers.

You must always be ready to take time to be courteous and helpful to campers. Sometimes it will take considerable tact to keep this time to a MINIMUM. Some hospitable employees find it is easy to rap with campers, but you must recognize that in the final analysis the public also appreciates a busy employee. Leave the impression that you are friendly and helpful, but also a person with a busy schedule.

Following are a few features which can help a Forest Officer present himself and the Forest Service to the public:

1. How do you look to others? Forest Officers should be clean shaven or with neatly trimmed face hair, and with a neat haircut or style. Clothes should be neat, well kept, and clean within the limits of the job being done.

2. How do you act toward others? You are rendering a service when you help people. A Forest Officer must have the attitude to render assistance when needed. Do this with a smile, be courteous and try to help. When done, go back to work and avoid wasting time.

3. How is your housekeeping? Your equipment, supplies and vehicle should be neat and orderly, and clean when possible within the limits of the job. The cab of your vehicle should always be clean and neat.

4. Do you practice what you preach? We can't make one rule for the public and another for ourselves. If we are going to enforce the rules, we must set an example. Watch speed limits and traffic control signs within and without recreation sites. They apply to you.

5. How do you answer questions? Forest Officers must always answer questions cheerfully, courteously and tactfully. Direct the person to someone else or admit you don't know, if you cannot answer the question. The wrong answer to a question can only lead to problems.

6. How well do you serve the public? A lot of questions can be answered by supplying maps and other printed literature. Maintain a supply with you and be familiar with their content so you can fill a visitor's needs. Do not merely hand out brochures. Point out where the needed information is found in the map or brochure.

Most rule violations occur because people are not aware of the rule or cannot see the purpose they serve. Take the time to explain the reason for the particular rule or regulation -- ask people to pass this along to other campers as a favor to you. Thank them for helping you in your job and, if possible, compliment them on a noticeably good point in their camp unit. Remember most of our visitors have an urban background which may give them a point-of-view or attitude which may be hard for us to understand -- but, legitimate from their standpoint. Build understanding.

You will receive complaints on the rehabilitation of campgrounds, i.e., barriers, and closing off of waterfront zones -- these are common complaints that are due mainly to a lack of information or understanding of the problem. Oldtime campers remember the days free of restrictions when they could camp where they pleased, cut trees, toss garbage in the streams, and hunt and fish with little or no limits. This pioneering tradition dies hard.

Times change. Conquest of the land and, conversely, land available for conquest is coming to an end due to population pressures, more leisure time available and the growing popularity of outdoor recreation. In place of the pioneering tradition, try to encourage the so-called "land ethic" -- the love of land so that each action by a person in the woods is self-judged as to its potential harm or good to the land. By encouragement and example of the land ethic by schools, conservation education, outdoor clubs, etc., and yourself as the sole Forest Service representative to many visitors, in time enforcement and explanation of rules and regulations may become less necessary than is so at present.

Campgrounds are being moved back from streamsides to save the stream or lake front from overuse, to preserve the vegetation and to prevent pollution. Everyone wants to camp on the shore of a lake or stream; however, there just isn't enough shoreline for everyone to do so.

Campground caretakers and recreation aides are not to expound their personal views on Forest Service policy to the public if they are not in accord with that policy. If you have a gripe, let your supervisor know about it, not the public.

Many levels of developed campgrounds are available to visitors. Sometimes campers get into a campground which doesn't suit their tastes. It is too primitive, or it is over-developed. What pleases the beginning camper may not please the Sierra Club "pro" at all. All levels of development are necessary to serve different tastes and needs. When you run into complaints about the appropriateness of a campground, try to explain and recommend a campground more suitable to the camper's desires.

APPENDIX I

Tools and Materials

The numbers preceding the following list of tools and materials are keyed to the tasks where they are required. Numbers following the item identify sources of supply which are listed in Appendix II.

(1) Broom - Corn fiber brooms are adequate. Generally short, small brooms are easier to maneuver in small toilet buildings. (1)

(2) Mop - Almost any wet mop will do. The same comments on size apply here. Be sure the mophead is compatible with your wringer. (1)

(3) Toilet Bowl Brush or Swab - There are a number of styles to choose from. Almost any will do. Some folks prefer the swab to the brush. (1), (2), (3)

(4) Putty Knife - The semi-flexible style is best. (1)

(5) Scrub Brush - This is called a pot or "gong" brush. A long handled style is best for reaching in garbage cans. Palmyra fibers are best. (1), (3)

(6) Rags - You will be better off if you get the best quality. Cheap rags often are not absorbent. (1)

(7) Dusting Brush - A bakery or counter brush is the best all-around for dusting. You also may want a painter's dusting brush for small crevices. A ceiling and wall brush with a long handle is handy if you can't reach the cobwebs in the rafters. (1)

(8) Dust pan - A simple, steel pan is OK. (1)

(9) Scrub Brush - This is the common household scrub brush with tampico fiber. A deck brush with palmyra fiber is also adequate. (1)

(10) Squeegee - Get the type that is for window cleaning. (1)

(11) Wire Brush - The type with a short handle is best. This will preserve a lot of knuckles. (1)

(12) Sponge - The best kind to get is the type that has a nylon scrubbing pad laminated to a cellulose sponge. Stock Nos. 7920-655-5290 and 7920-753-5150 in the GSA Catalog. (1)

(13) Double Bucket - The most convenient is the two compartment plastic pail. Second choice would be two separate pails.

(14) Ash Can - Whatever you use, make sure it is unburnable. A 10-gallon garbage can is good. (1)

(15) Shovel - A square blade lifting shovel is best. (1)

(16) Nylon Paint Brush - The brush must have synthetic bristles otherwise the paint remover will dissolve them. (1)

(17) Nylon Scrub Brush - Same reason for synthetic bristles. GSA Catalog No. 7920-061-0038.

(18) Bucket - A plastic pail is OK. (1)

(19) Small Brush - GSA Catalog No. 7920-619-9162 is OK. A toothbrush would even be good. Local supply of (1).

(20) Plastic Liners - GSA Catalog No. 8105-405-9376. These are in rolls of 150 bags per roll and are just as good, but less expensive than the old loose pack of 125 per box. (1)

(21) Mop Bucket - Make sure the bucket, wringer and mop are compatible. (1)

(22) Disinfectant-Deodorant-Detergent - This combination is excellent for heavy duty cleaning and disinfecting requirements. The strength of the mixed solution can be varied to meet variable soil conditions. Keep the solution clean to maintain effectiveness.

Airkem, A-33 liquid (2)
Johnson Wax, Forward (3)
L&A Products, Formula 46 (4)

(23) Toilet Bowl Cleaner - The two recommended products are safe for plumbing and stainless steel. Use it only on the inside of toilet stools.

Airkem, CBC (2)
Johnson Wax, Go-Getter (3)

(24) Heavy Duty Cleaner - The specialty of these products is grease removal.

L&A Products, Formula 36L (4)
Airkem, Multi-Purpose Degreaser (2)
Spritz

(25) Industrial Paint Remover - Be careful with this product. It really burns and eats holes in things if used carelessly.

L&A Products, Formula 60 (4)

(26) Litter Picker - The first listed sells for about $2.50. The second is deluxe and is better for "high production" pickup. It sells for around $12.00.

Litt'r Pik Stik (5)
Mark-Alan Litter Picker (6)

(27) Vault Deodorants - Two products have a record of successful use. The first is Airkem, Fresh Care. This is a new "odor counteractant" (combines with odor molecules in order to neutralize them) developed specifically for open pit or vault toilets. This is a liquid which is mixed with a light paraffin oil carrier and sprayed on odor producing surfaces (waste mass, vault or pit walls). Weekly, or more often, treatment may be expected.

The second is Zep's "Mr. Big" block. This is a 20-pound odor masking block designed to hang in the vault under the floor just in front of the toilet stool hole. This block may last an entire season if the weather is cool. It should be checked monthly to see if it needs replacement.

(28) Toilet Compartment Deodorants - These are space deodorants designed to be installed high on the wall of restrooms. Be sure you get the proper diffuser to go with the deodorant you plan to use.

Airkem, Red Label Solidaire (2)
Woodlets, La Ronde (3), (8)
Zep, Zep-O-Fresh (7)
American Deodorant Block, Wall Type (3)

APPENDIX II

Sources of Supply

(1) GSA Stock Catalog

(2) Airkem Denver, Inc.
400 South Lipon Street
Denver, Colorado 80223

Airkem Omaha, Inc.
4010 Hamilton Street
Omaha, Nebraska 68133

Some Airkem products are under Federal Supply Schedules. Catalog sheets describing each product are available upon request. Airkem also has a series of video training tapes, some dealing specifically with cleaning outdoor toilets, which their distributor can show on request.

(3) American Sanitary Products
2301 Blake Street
Denver, Colorado 80205

A 217 page catalog is available.

(4) L&A Products, Inc.
1993 West County Road B2
Saint Paul, Minnesota 55113

Specification sheets are available on each product.

(5) Litt'r Pik Stik
M.P.O. Box 510
Springfield, Missouri 65801

(6) Robert D. Sisco Associates - Mark-Alan Associates
P. O. Box 3
Livingston, New Jersey 07039

(7) Zep Manufacturing Company
4605 Monaco Street
Denver, Colorado

A 79 page catalog is available.

(8) Woodlets Incorporated
Art Spleiss Associates
1960 Carroll Avenue
San Francisco, California 94124

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